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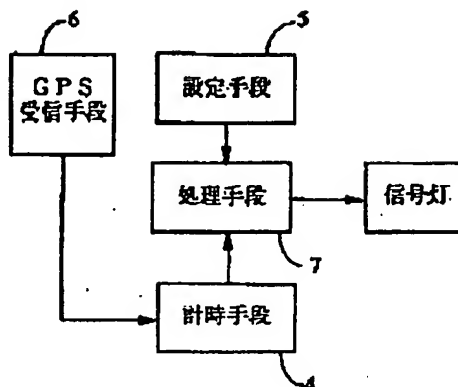
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TITLE : TEMPORARY SIGNAL SYSTEM



ABSTRACT : PROBLEM TO BE SOLVED: To obtain a system capable of preventing the synchronization of lighting of signal lamps of respective signals from being easily lost by adjusting the time information outputted from a timer means by using GPS time information.

SOLUTION: Each signal is provided with a red lamp, a green lamp, a timer means 4 for counting time elapsed and outputting time information, a setting means 5 for inputting and storing flash information, a GPS receiving means 6 for receiving GPS time information outputted from an artificial satellite, and a control means 7. The control means 7 is constituted so as to control the flash information of the signal lamp based on the time information outputted from the timer means 4 and the flash information stored in the setting means 5, and when the time set up by the flash information or the time elapsed coincides with the time information outputted from the means 4, switch the flash of the signal lamp and regulate traffic. The time information outputted from the means 4 is adjusted by the GPS time information received by the means 6.

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Notes:

1. Untranslatable words are replaced with asterisks (****).
2. Texts in the figures are not translated and shown as it is.

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Dictionary: Last updated 09/12/2008 / Priority: 1. Electronic engineering / 2. Automobile / 3. Mechanical engineering

CLAIM + DETAILED DESCRIPTION

[Claim(s)]

cd [Claim 1] It is the temporary traffic signal control system which is equipped with two or more signals (1, 1 ..) which have a signal light (2, 3), controls blink of the signal light (2, 3) of each signal (1, 1 ..), and regulates traffic. the time check which carries out calculation of the elapsed time and outputs a hour entry -- [means / setting / to input and save blink information / a means (4) and / (5)] a time check -- [the control means which controls blink of a signal light (2, 3) based on the blink information saved for the hour entry and setting means (5) which a means (4) outputs] in the temporary traffic signal control system with which each signal (1, 1 ..) is equipped It has a GPS receiving means (6) to receive the GPS time entry outputted to each signal (1, 1 ..) from a satellite. using the GPS time entry which the GPS receiving means (6) received -- a time check -- the temporary traffic signal control system characterized by forming so that the hour entry which a means (4) outputs may be adjusted.

[Claim 2] The temporary traffic signal control system according to claim 1 characterized for the blink information inputted into a setting means (5) by electric or forming so that it may input using a magnetic recording medium.

[Claim 3] It also has the electric wave transmitting means and electric wave receiving means which were electrically connected to each signal (1, 1 ..) with the setting means (5). The blink information saved for the setting means (5) of the desired signal (1) is transmitted to the electric wave receiving means of the signal (1 ..) except the signal of the above-mentioned request among temporary traffic signal control systems from the electric wave transmitting means of the signal (1) of the request. The temporary traffic signal control system according to claim 1 characterized by forming so that it may input into the setting means (5) of the signal (1 ..) except the signal of the request.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the temporary traffic signal control system which uses for road repairing etc. and regulates traffic.

[0002]

[Description of the Prior Art] In the road-repairing spot, the scene of an accident, etc., the temporary traffic signal control system which regulates traffic using two or more signals is used. This temporary traffic signal control system builds a signal temporarily in the entrance of the traffic restriction section etc., respectively, and regulates traffic by changing signal lights, such as a red lamp and a blue LGT, and displaying a signal. And generally, by connecting between each signal with a signal cable, electricity is sent to the signal light turned on from a parent signal to a child signal, it is the method of not sending electricity to the signal light to switch off, and while a parent signal takes the synchronization of lighting of each signal, a signal is displayed.

[0003] However, when the temporary traffic signal control system turned on while taking a synchronization by connecting with such a signal cable is used, The length of the signal cable also became long, when the length of the traffic restriction section was long, handling became inconvenient, or the illuminance which causes a voltage drop and is turned on at the end of a signal cable fell, and there was a problem of becoming hard to see.

[0004] therefore -- for example, the time check which carries out calculation of the elapsed time as shown in JP,H4-54598,A, and outputs a hour entry -- [means] a setting means to set up blink information, and a time check -- the temporary traffic signal control system which made the signal cable unnecessary is examined by equipping each signal with the control means which controls lighting based on the blink information set as the hour entry and setting means which a means outputs.

[0005] however, the case of a temporary traffic signal control system as shown in JP,H4-54598,A -- a time check -- since a means is in each signal -- each time check -- the synchronization of lighting collapsed by the delay of a means, or struggling of progress, and there was a problem that confusion of traffic may arise. When three or more sets of signals, such as a three-forked road, were used especially, there was a problem that the synchronization of lighting collapsed easily.

[0006] In addition, although the method of preparing AM radio set as shown in the work example of above-mentioned JP,H4-54598,A in each signal for the reason, and adjusting a hour entry based on the received time signal is also examined Since the place in which a signal is installed is used at the place which the road superiors near the crest near the building and a radio signal do not reach easily in many cases, it is hard to receive a time signal in many cases. The time when neither the problem that the synchronization of lighting may still collapse

easily nor the time zone which radio broadcasting, such as night, stopped nor a time signal is sent could not be adjusted, but there was a problem that the synchronization of lighting collapsed easily in the meantime.

[0007] Therefore, it is the temporary traffic signal control system which made unnecessary the signal cable which is equipped with two or more signals which have a signal light, controls blink of the signal light of each signal, and regulates traffic, and the synchronization of lighting of the signal light of each signal does not collapse easily, and the temporary traffic signal control system which enables stable regulation is called for.

[0008]

[Problem to be solved by the invention] [the place which accomplished this invention in order to improve the above-mentioned trouble, and is made into the purpose] It is the temporary traffic signal control system which made unnecessary the signal cable which is equipped with two or more signals which have a signal light, controls blink of the signal light of each signal, and regulates traffic, and is in offering the temporary traffic signal control system with which the synchronization of lighting of the signal light of each signal does not collapse easily.

[0009]

[Means for solving problem] [the temporary traffic signal control system concerning Claim 1 of this invention] the time check which is the temporary traffic signal control system which is equipped with two or more signals which have a signal light, controls blink of the signal light of each signal, and regulates traffic, carries out calculation of the elapsed time and outputs a hour entry -- [means] a setting means to input and save blink information, and a time check -- [the control means which controls blink of a signal light based on the blink information saved for the hour entry and setting means which a means outputs] in the temporary traffic signal control system with which each signal is equipped using the GPS time entry which was equipped also with a GPS receiving means to receive the GPS time entry outputted to each signal from a satellite, and the GPS receiving means received -- a time check -- it is characterized by forming so that the hour entry which a means outputs may be adjusted.

[0010] The temporary traffic signal control system concerning Claim 2 of this invention is characterized for the blink information inputted into a setting means by electric or forming so that it may input using a magnetic recording medium in a temporary traffic signal control system according to claim 1.

[0011] [the temporary traffic signal control system concerning Claim 3 of this invention] In a temporary traffic signal control system according to claim 1, it also has the electric wave transmitting means and electric wave receiving means which were electrically connected to each signal with the setting means. It is characterized by forming the blink information saved for the setting means of the desired signal so that it may transmit to the electric wave receiving means of the signal except the signal of the above-mentioned request among temporary traffic

signal control systems and may input into the setting means of the signal except the signal of the request from the electric wave transmitting means of the signal of the request.

la [0012] using the GPS time entry which is exact as for the temporary traffic signal control system of this invention, and is always sent -- a time check -- in order to adjust the hour entry which a means outputs the time check of each signal -- it is hard to generate delay and struggling of progress between means, and the traffic restriction in which the synchronization of lighting of the signal light of each signal does not collapse easily is attained. Since there is a satellite in the direction of the zenith and the electric wave is sent, the place in which a signal is installed Furthermore, the road superiors near the crest near the building, Even if it is the place that the electric wave from a terrestrial station does not arrive easily, it can stabilize and receive, and the traffic restriction in which the synchronization of lighting of the signal light of each signal does not collapse easily in a large setting position is attained.

[0013]

[Mode for carrying out the invention] The temporary traffic signal control system concerning this invention is explained based on Drawings. Drawing 1 is drawing explaining the important section of the form of 1 operation of the temporary traffic signal control system concerning this invention. Drawing 2 is the important section block diagram of the form of 1 operation of the temporary traffic signal control system concerning this invention, drawing 3 is a time chart explaining lighting operation of the form of 1 operation of the temporary traffic signal control system concerning this invention, and drawing 4 is the important section block diagram of the form of other operations of the temporary traffic signal control system concerning this invention.

ab
x5
1
2 [0014] the signal 1 with which the form of operation of the first of the temporary traffic signal control system concerning this invention has a red lamp 2 and blue LGT 3 as a signal light as shown in drawing 1 -- having 1..two or more sets -- each signals 1 and 1 -- it is the temporary traffic signal control system which controls blink of the red lamp 2 and blue LGT 3 which it has in ..., and regulates traffic. and each signals 1 and 1 -- the time check which carries out calculation of the elapsed time to .. with a red lamp 2 and blue LGT 3, and outputs a hour entry -- [means / 4 (timer)] It has a setting means 5 to input and save blink information, a GPS receiving means 6 to receive the GPS time entry outputted from a satellite, and the control means (not shown) that controls blink of a signal light.

[0015] and it is shown in drawing 2 -- as -- the control means 7 -- a time check -- [elapsed time / which controlled blink of the signal light and was set up using blink information / the time or elapsed time] based on the blink information saved for the hour entry and the setting means 5 which a means 4 outputs a time check -- when the hour entry which a means 4 outputs is in agreement, blink of a signal light is changed and traffic is regulated.

[0016] in addition, a time check -- the hour entry which a means 4 outputs is adjusted using the

GPS time entry which the GPS receiving means 6 received, and always keeps the hour entry exact. This GPS receiving means 6 the information to receive as an object for the navigation systems of mobiles, such as a car and a marine vessel In being the information used for the use which receives the electric wave which a satellite sends and measures the position of a mobile and measuring a position The position of a mobile is detected from the attainment time delay of the electric wave by calculating the distance of a satellite and a mobile by receiving the electric wave from three or more satellites. Therefore, by including the information on the time which sent the electric wave, the information on the position of a satellite, etc. in the electric wave which this satellite sends, and always being sent, even if it uses by a mobile, a position can be detected. In addition, the clock of high accuracy is used as compared with the clock by which the clock which asks for the time which this satellite sends is generally used, and an exact GPS time entry is sent.

1001
3
11
[0017] such a GPS time entry that is exact and is always sent is used for the temporary traffic signal control system of this invention -- a time check -- in order to adjust the hour entry which a means 4 outputs Each signals 1 and 1 .. a time check -- it is hard to generate delay and struggling of progress between means 4 -- Each signals 1 and 1 .. the traffic restriction in which the synchronization of lighting of a signal light does not collapse easily is attained. since [furthermore,] there is a satellite in the direction of the zenith and the electric wave is sent -- signals 1 and 1 -- the place in which .. is installed -- the road superiors near the crest near the building -- Even if it is the place that the electric wave from a terrestrial station does not arrive easily, it can stabilize and receive, and they are each signals 1 and 1 in a large setting position.. The traffic restriction in which the synchronization of lighting of a signal light does not collapse easily is attained.

[0018] in addition, a time check -- the interval of the blink information which does not limit the interval in particular that adjusts the hour entry which a means 4 outputs by the GPS time entry which the GPS receiving means 6 received and in which traffic is restricted, and the used time check -- it is selectable suitably by the accuracy of a means 4. Moreover, the GPS time entry which the GPS receiving means 6 received is calculated, and you may make it adjust in quest of real time, and may make it adjust using the GPS time entry sent from a desired satellite as it is.

[0019] moreover, the GPS time entry in which the GPS receiving means 6 received drawing 2 - a time check -- inputting into a means 4 -- a time check -- although the hour entry outputted in a means 4 is adjusted inputting into the control means 7 not the thing to limit to this method but the GPS time entry which the GPS receiving means 6 received -- the control means 7 and a time check -- you may make it adjust between means 4

[0020] In this way, since the temporary traffic signal control system of this invention is a temporary traffic signal control system with which the synchronization of lighting of the signal

light of each signal does not collapse easily, even if it is the case where three sets of the signals of three-forked road specification as blink information shows to drawing 3 (a) are used, the traffic restriction of it in which the synchronization of lighting does not collapse easily is attained. Moreover, even if it is the case where specification is changed in day and night as blink information shows to drawing 3 (b), the traffic restriction in which the synchronization of lighting does not collapse easily is attained.

[0021] in addition, [such various kinds of blink information] as a method of inputting into a setting means For example, the method (it is described as the input method A below) of inputting into each of each signal with a touch panel etc., The method (it is described as the input method B below) of inputting into each of each signal, after inputting into a magnetic card, an IC card, etc. externally beforehand, After copying the information inputted with the touch panel etc. with the desired signal to a magnetic card etc., The method (it is described as the input method C below) of copying and inputting from a magnetic card etc. with the signal except the signal, The electric wave transmitting means 8a and 8b electrically connected to each signals 1a and 1b as shown in drawing 4 with the setting means 5a and 5b, And it also has the electric wave receiving means 9a and 9b electrically connected with the setting means 5a and 5b. The blink information saved for the setting means 5a of the desired signal 1a is transmitted from the electric wave transmitting means 8a of the signal 1a of the request. The transmitted blink information is received among temporary traffic signal control systems with the electric wave receiving means 9b of the signal 1b except a desired signal, and the method (it is described as the input method D below) of inputting into the setting means 5b of the signal 1b etc. is mentioned.

[0022] In addition, when changing blink information after arranging each signal in the traffic restriction section the case of the input method B, and in the case of the input method C, the operation performed with the signal of a remote place can be managed with easy operation, and workability excels and is desirable. Moreover, when changing blink information after arranging each signal in the traffic restriction section in the case of the input method D, it can input without going to the signal of a remote place, and especially workability excels and is desirable.

[0023] in addition, the case of the input method D -- further -- the setting means 5a and 5b and a time check -- [Means 4a and 4b / it connects electrically and] the time check of the desired signal 1a -- the time check of the signal 1b send the hour entry which Means 4a outputs from the electric wave transmitting means 8a of the signal 1a of the request, and excluding the signal of a request of the electric wave which sent -- you may make it input into Means 4b In this case, when it becomes impossible for the GPS receiving means 6b to receive a GPS time entry temporarily by progress of work etc., traffic can be regulated using the hour entry from other signals and taking a synchronization, and the reliability of a temporary traffic signal

control system becomes high and is desirable. In addition, although one set or two or more sets are sufficient as it, when sending from two or more sets and the number of the signals which send a hour entry in this case disseminates discernment information peculiar to each signal simultaneously, it becomes difficult to interfere and is desirable [the number / a hour entry].

[0024]

[Effect of the Invention] the GPS time entry which is outputted from a satellite and which is exact and is always sent is used for the temporary traffic signal control system of this invention -- a time check -- in order to adjust the hour entry which a means outputs the time check of each signal -- if it is hard to generate delay and struggling of progress between means and the temporary traffic signal control system of this invention is used, the traffic restriction in which the synchronization of lighting of the signal light of each signal does not collapse easily will be attained. Since there is a satellite in the direction of the zenith and the electric wave is sent, the place in which a signal is installed Furthermore, the road superiors near the crest near the building, Even if it is the place that the electric wave from a terrestrial station does not arrive easily, it can stabilize and receive, and the traffic restriction in which the synchronization of lighting of the signal light of each signal does not collapse easily in a large setting position is attained.

[Translation done.]